

ACT Profile Report - State

Graduating Class 2009
Massachusetts



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This report provides information about the performance of your 2009 graduating seniors who took the ACT as sophomores, juniors, or seniors; and self-reported at the time of testing that they were scheduled to graduate in 2009 and tested under standard time conditions.

This report focuses on:

Performance - student test performance in the context of college readiness

Access - number of your graduates exposed to college entrance testing and the percent of race/ethnicity participation

Course Selection - percent of students pursuing a core curriculum

Course Rigor - impact of rigorous coursework on achievement

College Readiness - percent of students meeting ACT College Readiness Benchmark Scores in each content area

Awareness - extent to which student aspirations match performance

Articulation - colleges and universities to which your students send test results

Each year, test data for a school, district, and the state represents a different cohort of students. ACT encourages educators to focus on trends (3, 5, 10 years), not year-to-year changes. Such changes can represent normal – even expected – fluctuations. On the other hand, trend lines offer more insight into what is happening in a school, district, or the state.

Further, ACT encourages educators to measure student performance in the context of college readiness measures. The focus should be on the number and percentage of students meeting or exceeding ACT's College Readiness Benchmark Scores, a measure that is much more meaningful and understandable than an average composite score for a group of students.

The ACT is a curriculum-based measure of college readiness. ACT components include:

- Tests of academic achievement in English, math, reading, science, and writing (optional)
- High school grade and course information
- Student Profile Section
- Career Interest Inventory

The ACT:

Every few years, ACT conducts the **ACT National Curriculum Survey** to ensure its curriculum-based assessment tools accurately measure the skills high school teachers teach and instructors of entry-level college courses expect. The ACT is the only college readiness test designed to reflect the results of such a survey.

ACT's **College Readiness Standards** are sets of statements intended to help students, parents and educators understand the meaning of test scores. The standards relate test scores to the types of skills needed for success in high school and beyond. They serve as a direct link between what students have learned and what they are ready to do next. The ACT is the only college readiness test for which scores can be tied directly to standards.

Only the ACT reports **College Readiness Benchmark Scores** – A benchmark score is the minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college courses, which include English Composition, Algebra, Social Science and Biology. These scores were empirically derived based on the actual performance of students in college. The College Readiness Benchmark Scores are:

College Course/Course Area	ACT Test	Benchmark Score
English Composition	English	18
Algebra	Mathematics	22
Social Sciences	Reading	21
Biology	Science	24

For more information, go to www.act.org

How to Improve Scores and Increase College Readiness

39% of your students met all four ACT College Readiness Benchmark Scores (Table 1.1). To improve students' scores and increase the percentage of students identified as college ready, ACT suggests:

PROVIDING ACCESS FOR ALL STUDENTS TO TAKE THE ACT: 13,093 of your students are included in this report (the 'cohort'). Increasing access insures that more students have the opportunity to consider college and allows the reader to use this report to evaluate how well courses and instructional programs are preparing students for college and work.

MAKING CORE CURRICULUM A PRIORITY: Emphasize the need for all students to develop college and work ready skills, regardless of postsecondary aspirations. 63% of the students in the cohort reported taking courses that would be considered 'Core or More' (Table 1.4).

MAKING SURE STUDENTS ARE TAKING THE RIGHT KINDS OF COURSES: Table 3.2 reports 1% of the cohort took less than three years of math courses. Of these students, 40% were college ready. 5% of the cohort reported taking the minimum math core (Algebra I, Algebra II, and Geometry). 21% of these students were college ready. In comparison, 71% of the students who advanced beyond minimum math core were college ready. Getting more students ready for Algebra prior to 9th grade will increase the chances that students will be prepared for and take advanced-level math courses.

Similarly, Table 3.2 reports 4% of the cohort took less than three years of natural science courses. 25% of these students were college ready. In comparison, 44% of students who took at least three years of science coursework were college ready.

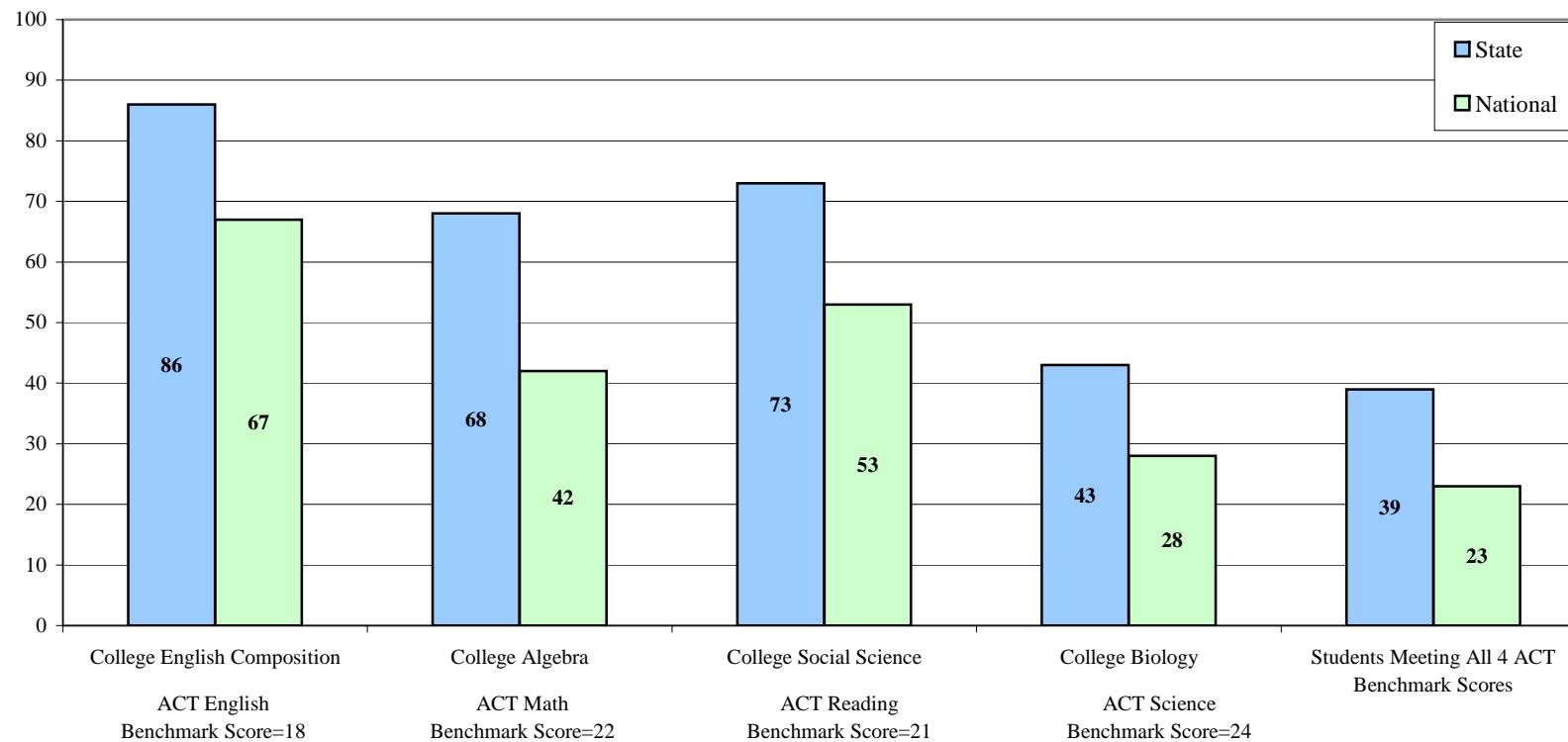
EVALUATING RIGOR OF COURSES: Table 2.6 reports the percentage of students falling in each of the ACT College Readiness Standards score ranges. For example, approximately 21% of the cohort fall into the lowest three Mathematics score ranges. To increase these students' achievement, identify the standards they should focus on next by accessing ACT's College Readiness Standards at www.act.org/standard.

PLAN GUIDANCE ACTIVITIES BASED ON STUDENTS' CAREER AND COLLEGE ASPIRATIONS: Data in Tables 4.1 and 4.2 enable the reader to determine if aspirations are consistent with academic performance and whether among students with similar aspirations, academic performance is consistent across racial/ethnic groups.

For more information on interpreting data in this report, or to learn how ACT can help your students improve their readiness for college and the workplace, contact your regional office at 518-869-7378.

Section I

Executive Summary

Figure 1.1. Percent of Your Students Ready for College-Level Coursework

A benchmark score is the minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college course.

Table 1.1. Five Year Trends—Percent of Students Meeting College Readiness Benchmarks

Year	Number of Students Tested		Percent Meeting Benchmarks									
	State	National	English		Mathematics		Reading		Science		Meeting All Four	
			State	National	State	National	State	National	State	National	State	National
2005	8,168	1,186,251	80	68	58	41	66	51	34	26	30	21
2006	8,865	1,206,455	83	69	62	42	67	53	36	27	31	21
2007	10,510	1,300,599	85	69	65	43	70	53	41	28	36	23
2008	12,469	1,421,941	85	68	65	43	70	53	40	28	36	22
2009	13,093	1,480,469	86	67	68	42	73	53	43	28	39	23

Table 1.2. Five Year Trends—Average ACT Scores

Year	Number of Students Tested		Average ACT Scores									
	State	National	English		Mathematics		Reading		Science		Composite	
			State	National	State	National	State	National	State	National	State	National
2005	8,168	1,186,251	22.5	20.4	22.8	20.7	23.4	21.3	22.0	20.9	22.8	20.9
2006	8,865	1,206,455	22.9	20.6	23.3	20.8	23.4	21.4	22.0	20.9	23.0	21.1
2007	10,510	1,300,599	23.5	20.7	23.6	21.0	23.9	21.5	22.6	21.0	23.5	21.2
2008	12,469	1,421,941	23.5	20.6	23.9	21.0	24.0	21.4	22.5	20.8	23.6	21.1
2009	13,093	1,480,469	23.9	20.6	24.3	21.0	24.3	21.4	22.8	20.9	23.9	21.1

Table 1.3. Five Year Trends—Average ACT Scores Nationwide

Year	Number of Students Tested		Average ACT Scores					
	State	National	English	Mathematics	Reading	Science	Composite	
			State	National	State	National	State	National
2005	1,186,251		20.4	20.7	21.3	20.9	20.9	
2006	1,206,455		20.6	20.8	21.4	20.9	21.1	
2007	1,300,599		20.7	21.0	21.5	21.0	21.2	
2008	1,421,941		20.6	21.0	21.4	20.8	21.1	
2009	1,480,469		20.6	21.0	21.4	20.9	21.1	

Table 1.4. Five Year Trends—Average ACT Scores by Level of Preparation

Year	Number of Students Tested		Percent ²		English		Mathematics		Reading		Science		Composite	
	Core or More ¹	Less than Core	Core or More	Less than Core	Core or More	Less than Core	Core or More	Less than Core	Core or More	Less than Core	Core or More	Less than Core	Core or More	Less than Core
2005	2,891	3,229	35	40	22.7	22.2	22.9	22.5	23.7	23.2	22.1	21.9	23.0	22.6
2006	2,786	3,642	31	41	23.2	22.6	23.5	23.1	23.8	23.1	22.3	21.8	23.3	22.8
2007	3,402	4,279	32	41	23.6	23.2	23.7	23.4	24.1	23.8	22.7	22.4	23.6	23.3
2008	5,853	4,816	47	39	23.5	23.3	23.9	23.7	24.1	23.7	22.5	22.3	23.6	23.4
2009	8,310	4,490	63	34	24.1	23.8	24.3	24.3	24.5	24.0	22.9	22.8	24.1	23.9

¹"Core or More" results correspond to students taking four or more years of English AND three or more years each of math, social studies, and natural science.

²Percent of all students tested. Numbers will not add up to 100% due to student non-response.

Table 1.5. Five Year Trends—Percent and Average Composite Score by Race/Ethnicity

	2005			2006			2007			2008			2009		
	N	%	Avg	N	%	Avg	N	%	Avg	N	%	Avg	N	%	Avg
All Students	8,168	100	22.8	8,865	100	23.0	10,510	100	23.5	12,469	100	23.6	13,093	100	23.9
African American/Black	329	4	18.5	342	4	18.4	348	3	19.0	405	3	19.3	462	4	19.1
American Indian/Alaska Native	16	0	20.6	17	0	22.4	15	0	21.8	17	0	22.8	21	0	23.8
Caucasian American/White	5,726	70	23.0	5,739	65	23.2	6,305	60	23.5	8,678	70	23.6	10,008	76	24.1
Hispanic	210	3	20.5	217	2	20.0	241	2	20.9	328	3	21.3	360	3	21.2
Asian American/Pacific Islander	297	4	23.0	306	3	23.4	364	3	23.8	407	3	24.3	593	5	25.2
Other/No Response	1,590	19	23.3	2,244	25	23.6	3,237	31	24.2	2,634	21	24.3	1,649	13	24.5

Section II

Academic Achievement

Table 2.1. ACT Score Distributions, Cumulative Percentages (CP¹), and Score Averages

ACT Scale Score	English		Mathematics		Reading		Science		Composite		ACT Scale Score
	N	CP	N	CP	N	CP	N	CP	N	CP	
36	110	100	103	100	200	100	60	100	10	100	36
35	259	99	192	99	118	98	105	100	70	100	35
34	351	97	281	98	478	98	119	99	142	99	34
33	342	95	406	96	591	94	107	98	221	98	33
32	390	92	347	92	317	89	122	97	330	97	32
31	373	89	377	90	599	87	243	96	411	94	31
30	637	86	320	87	702	82	328	94	570	91	30
29	444	81	716	85	600	77	397	92	666	87	29
28	734	78	791	79	669	72	451	89	763	82	28
27	663	72	868	73	623	67	544	85	923	76	27
26	817	67	1,141	66	650	63	903	81	997	69	26
25	945	61	1,052	58	567	58	1,446	74	1,005	61	25
24	869	54	971	50	886	53	845	63	978	53	24
23	890	47	779	42	764	47	1,270	57	962	46	23
22	856	40	569	36	791	41	905	47	931	39	22
21	841	34	737	32	941	35	1,174	40	860	31	21
20	763	27	587	26	632	27	1,092	31	721	25	20
19	579	21	549	22	662	23	942	23	657	19	19
18	442	17	566	18	369	18	623	16	594	14	18
17	373	14	684	13	566	15	325	11	429	10	17
16	396	11	597	8	409	10	307	8	298	7	16
15	331	8	319	4	266	7	192	6	238	4	15
14	178	5	101	1	292	5	158	5	136	2	14
13	150	4	26	1	182	3	171	3	103	1	13
12	111	3	8	1	80	2	104	2	47	1	12
11	92	2	2	1	87	1	71	1	17	1	11
10	64	1	2	1	31	1	35	1	11	1	10
9	52	1	0	1	10	1	30	1	2	1	9
8	22	1	0	1	4	1	14	1	1	1	8
7	11	1	0	1	5	1	3	1	0	1	7
6	7	1	2	1	1	1	2	1	0	1	6
5	0	1	0	1	1	1	2	1	0	1	5
4	1	1	0	1	0	1	1	1	0	1	4
3	0	1	0	1	0	1	2	1	0	1	3
2	0	1	0	1	0	1	0	1	0	1	2
1	0	1	0	1	0	1	0	1	0	1	1
Avg (SD)	23.9 (5.8)		24.3 (5.3)		24.3 (6.0)		22.8 (4.8)		23.9 (4.8)		Avg (SD)

¹CP is the cumulative percent of students at or below a score point.

Note: Shaded portions of columns identify the students who met/exceeded the ACT College Readiness Benchmark Scores.

Table 2.2. ACT Subscore Distributions, Cumulative Percentages (CP¹), and Subtest Score Averages

ACT Scale Score	English				Reading				Mathematics								ACT Scale Score	
	Usage/ Mechanics		Rhetorical Skills		Social Studies		Arts/ Literature		Pre/Elementary Algebra		Algebra/ Coordinate Geometry		Plane Geometry/ Trigonometry					
	N	CP	N	CP	N	CP	N	CP	N	CP	N	CP	N	CP	N	CP		
18	1,041	100	382	100	692	100	1,312	100	1,094	100	345	100	380	100	100	18		
17	955	92	144	97	943	95	748	90	1,512	92	277	97	126	97	97	17		
16	997	85	1,285	96	963	88	1,669	84	1,072	80	857	95	910	96	96	16		
15	1,259	77	1,337	86	1,392	80	1,588	72	1,310	72	854	89	1,387	89	89	15		
14	1,012	68	1,510	76	958	70	1,365	59	1,243	62	2,133	82	1,665	79	79	14		
13	1,122	60	1,566	64	1,035	62	742	49	1,190	52	1,295	66	2,198	66	66	13		
12	1,223	51	1,889	52	1,605	54	1,023	43	1,605	43	1,934	56	1,148	49	49	12		
11	1,186	42	1,282	38	1,088	42	1,085	35	961	31	1,223	41	1,621	40	40	11		
10	1,295	33	1,281	28	1,024	34	845	27	978	24	1,995	32	1,280	28	28	10		
9	1,083	23	978	18	1,380	26	721	21	623	16	1,012	17	891	18	18	9		
8	623	15	628	11	759	15	809	15	783	11	588	9	751	11	11	8		
7	535	10	360	6	707	10	479	9	535	6	254	4	195	6	6	7		
6	338	6	169	3	299	4	326	5	144	1	82	2	232	4	4	6		
5	224	3	154	2	133	2	237	3	27	1	166	2	144	2	2	5		
4	127	2	81	1	33	1	100	1	11	1	31	1	66	1	1	4		
3	52	1	39	1	50	1	30	1	1	1	25	1	62	1	1	3		
2	19	1	7	1	26	1	12	1	3	1	10	1	21	1	1	2		
1	2	1	1	1	6	1	2	1	1	1	12	1	16	1	1	1		
Avg (SD)	12.3 (3.6)		12.2 (3.0)		12.2 (3.4)		12.8 (3.6)		13.1 (3.3)		12.1 (2.8)		12.1 (2.9)		Avg (SD)			

¹CP is the cumulative percent of students at or below a score point.**Table 2.3. ACT Score Quartile Values**

Quartile	English	Mathematics	Reading	Science	Composite
Q3 (75th Percentile)	28	28	29	26	27
Q2 (50th Percentile)	24	25	24	23	24
Q1 (25th Percentile)	20	20	20	20	21

Table 2.4. Average ACT Composite Scores for Race/Ethnicity by Level of Preparation

Student Group	Race/Ethnicity	Number of Students Tested	Percent Taking Core or More ¹	Average ACT Composite Score Core or More	Average ACT Composite Score Less Than Core
State	All Students	13,093	63	24.1	23.9
	African American/Black	462	53	19.7	18.6
	American Indian/Alaska Native	21	48	23.8	23.1
	Caucasian American/White	10,008	65	24.1	24.1
	Hispanic	360	55	21.5	20.7
	Asian American/Pacific Islander	593	55	25.5	24.9
	Other/No Response	1,649	59	24.7	24.7
National	All Students	1,480,469	70	22.0	19.1
	African American/Black	196,149	64	17.6	15.9
	American Indian/Alaska Native	15,773	59	20.1	17.4
	Caucasian American/White	941,206	73	23.0	20.1
	Hispanic	133,569	67	19.6	17.3
	Asian American/Pacific Islander	59,093	80	23.7	21.4
	Other/No Response	134,679	63	22.2	19.0

¹"Core or More" results correspond to students taking four or more years of English AND three or more years each of math, social studies, and natural science.

Table 2.5. Average ACT Scores by Race/Ethnicity

Student Group	Race/Ethnicity	English	Mathematics	Reading	Science	Composite
State	All Students	23.9	24.3	24.3	22.8	23.9
	African American/Black	18.6	19.9	19.0	18.5	19.1
	American Indian/Alaska Native	23.3	23.7	24.5	23.0	23.8
	Caucasian American/White	24.1	24.3	24.5	22.9	24.1
	Hispanic	20.7	21.3	21.7	20.4	21.2
	Asian American/Pacific Islander	24.5	27.1	24.5	24.3	25.2
	Other/No Response	24.7	24.9	24.8	23.3	24.5
National	All Students	20.6	21.0	21.4	20.9	21.1
	African American/Black	16.0	17.1	16.9	17.2	16.9
	American Indian/Alaska Native	17.9	18.7	19.4	19.1	18.9
	Caucasian American/White	21.9	21.9	22.6	21.9	22.2
	Hispanic	17.7	19.1	18.9	18.8	18.7
	Asian American/Pacific Islander	22.6	24.5	22.7	22.7	23.2
	Other/No Response	20.4	21.0	21.3	20.7	20.9

Table 2.6. Percent of Students in College Readiness Standards (CRS) Score Ranges

Student Group	CRS Range	English		Mathematics		Reading		Science	
		N	%	N	%	N	%	N	%
State	33 to 36	1,062	8	982	8	1,387	11	391	3
	28 to 32	2,578	20	2,551	19	2,887	22	1,541	12
	24 to 27	3,294	25	4,032	31	2,726	21	3,738	29
	20 to 23	3,350	26	2,672	20	3,128	24	4,441	34
	16 to 19	1,790	14	2,396	18	2,006	15	2,197	17
	13 to 15	659	5	446	3	740	6	521	4
	01 to 12	360	3	14	0	219	2	264	2
National	33 to 36	60,269	4	45,198	3	74,801	5	26,524	2
	28 to 32	154,245	10	139,060	9	205,090	14	104,787	7
	24 to 27	251,396	17	293,477	20	226,630	15	287,693	19
	20 to 23	376,203	25	300,212	20	361,756	24	492,815	33
	16 to 19	303,385	20	495,592	33	334,831	23	367,167	25
	13 to 15	179,194	12	198,214	13	195,336	13	131,197	9
	01 to 12	155,777	11	8,716	1	82,025	6	70,286	5

Table 2.7. Average ACT Scores by Gender

Student Group	Gender	Average ACT Scores						
		N	Percent	English	Mathematics	Reading	Science	Composite
State	Males	5,455	42	23.5	25.1	24.2	23.4	24.2
	Females	7,577	58	24.2	23.7	24.3	22.4	23.8
	Missing	61	0	25.9	26.0	27.1	24.3	26.0
National	Males	668,165	45	20.2	21.6	21.3	21.4	21.3
	Females	808,097	55	20.9	20.4	21.4	20.4	20.9
	Missing	4,207	0	20.3	21.2	21.5	20.8	21.1

Table 2.8. Percent of Students Meeting College Readiness Benchmark Scores by Gender

Student Group	Gender	Percent of Students					Meet All Four
		English	Mathematics	Reading	Science	All Four	
State	Males	85	73	71	48	44	
	Females	87	65	73	40	36	
National	Males	65	47	52	33	27	
	Females	69	38	53	24	20	

Table 2.9. College Readiness Benchmark (CRB) Percent and Average ACT Scores by Overall High School Curriculum

Student Group	Curriculum Taken ¹	N	English		Mathematics		Reading		Science		Composite	
			CRB %	Avg	CRB %	Avg	CRB %	Avg	CRB %	Avg	CRB % ³	Avg
State	Core or More ²	8,310	88	24.1	69	24.3	74	24.5	44	22.9	40	24.1
	Less than Core	4,490	84	23.8	67	24.3	70	24.0	43	22.8	39	23.9
	Missing	293	75	21.4	54	22.3	59	22.3	29	20.8	25	21.9
National	Core or More	1,039,502	75	21.7	50	21.9	59	22.3	34	21.7	28	22.0
	Less than Core	391,458	52	18.3	25	18.9	38	19.4	16	19.2	12	19.1
	Missing	49,509	35	15.9	16	17.5	25	17.3	10	17.6	7	17.2

¹"Curriculum Taken" reflects overall high school curriculum in this table.²"Core or More" results correspond to students taking four or more years of English AND three or more years each of math, social studies, and natural science.³Composite CRB% results reflect students who meet all four subject-area benchmarks.**Table 2.10. College Readiness Benchmark (CRB) Percent and Average ACT Scores by Content-Specific Curriculum**

Student Group	Curriculum Taken ¹	English			Mathematics			Reading			Science		
		N	CRB %	Avg	N	CRB %	Avg	N	CRB %	Avg	N	CRB %	Avg
State	Core or More	12,645	87	24.0	12,643	69	24.3	8,745	73	24.3	12,284	44	23.0
	Less than Core	172	76	21.5	168	39	20.4	4,064	72	24.3	526	24	20.0
	Missing	276	75	21.4	282	55	22.4	284	60	22.3	283	29	21.0
National	Core or More	1,367,549	70	20.9	1,334,313	46	21.4	1,287,169	55	21.7	1,206,541	32	21.5
	Less than Core	73,276	42	16.8	101,413	7	16.5	151,264	41	19.7	230,683	12	18.4
	Missing	39,644	37	16.1	44,743	17	17.5	42,036	26	17.5	43,245	11	17.7

¹"Curriculum Taken" reflects content-specific curriculum in this table.

For instance, Reading "Core or More" results correspond to students taking three or more years of social studies, regardless of courses taken in other content areas.

Section III

College Readiness and the

Impact of Course Rigor

Figure 3.1. Percent of Students Meeting ACT College Readiness Benchmark Scores by Race/Ethnicity: ENGLISH

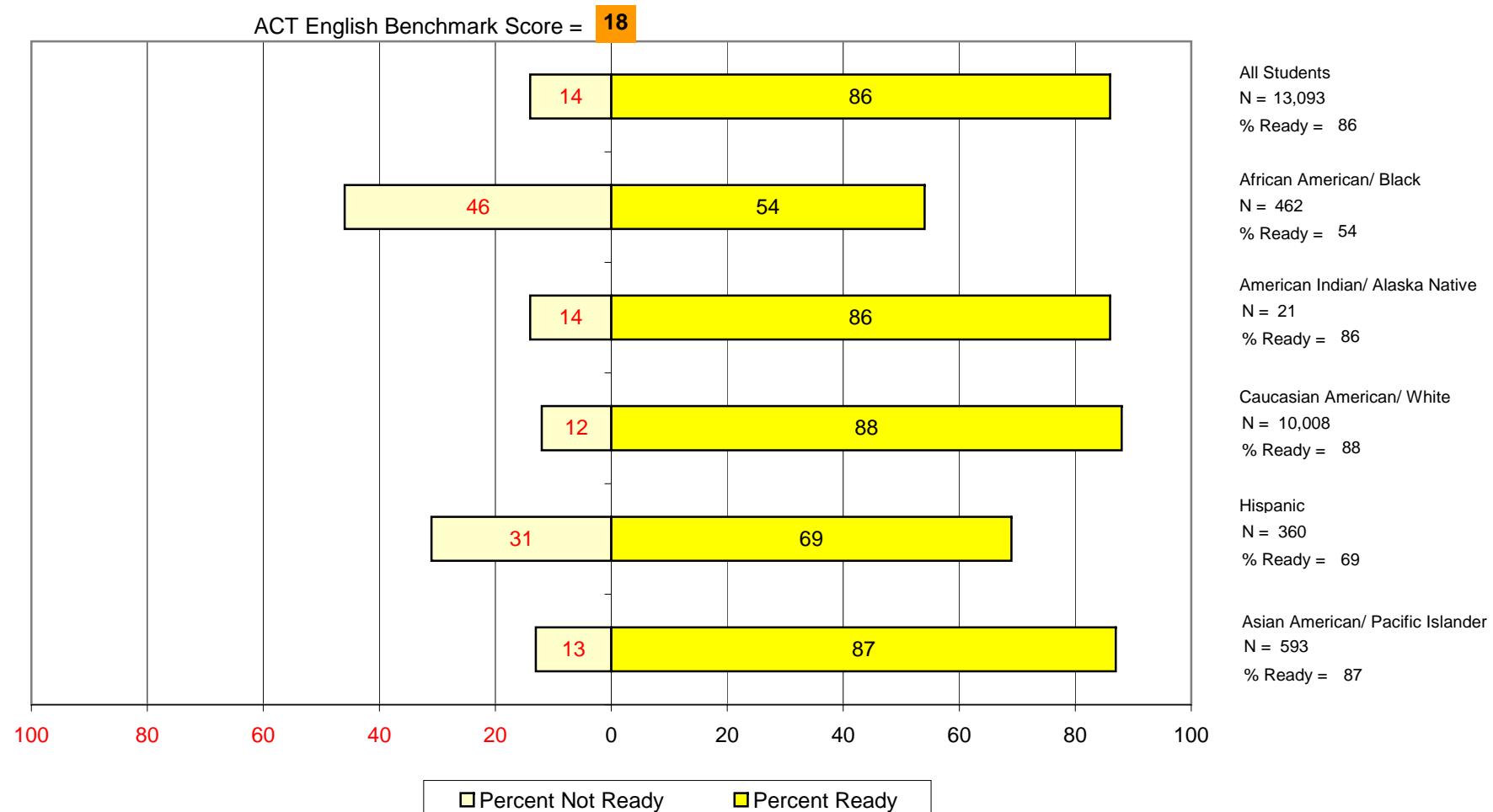


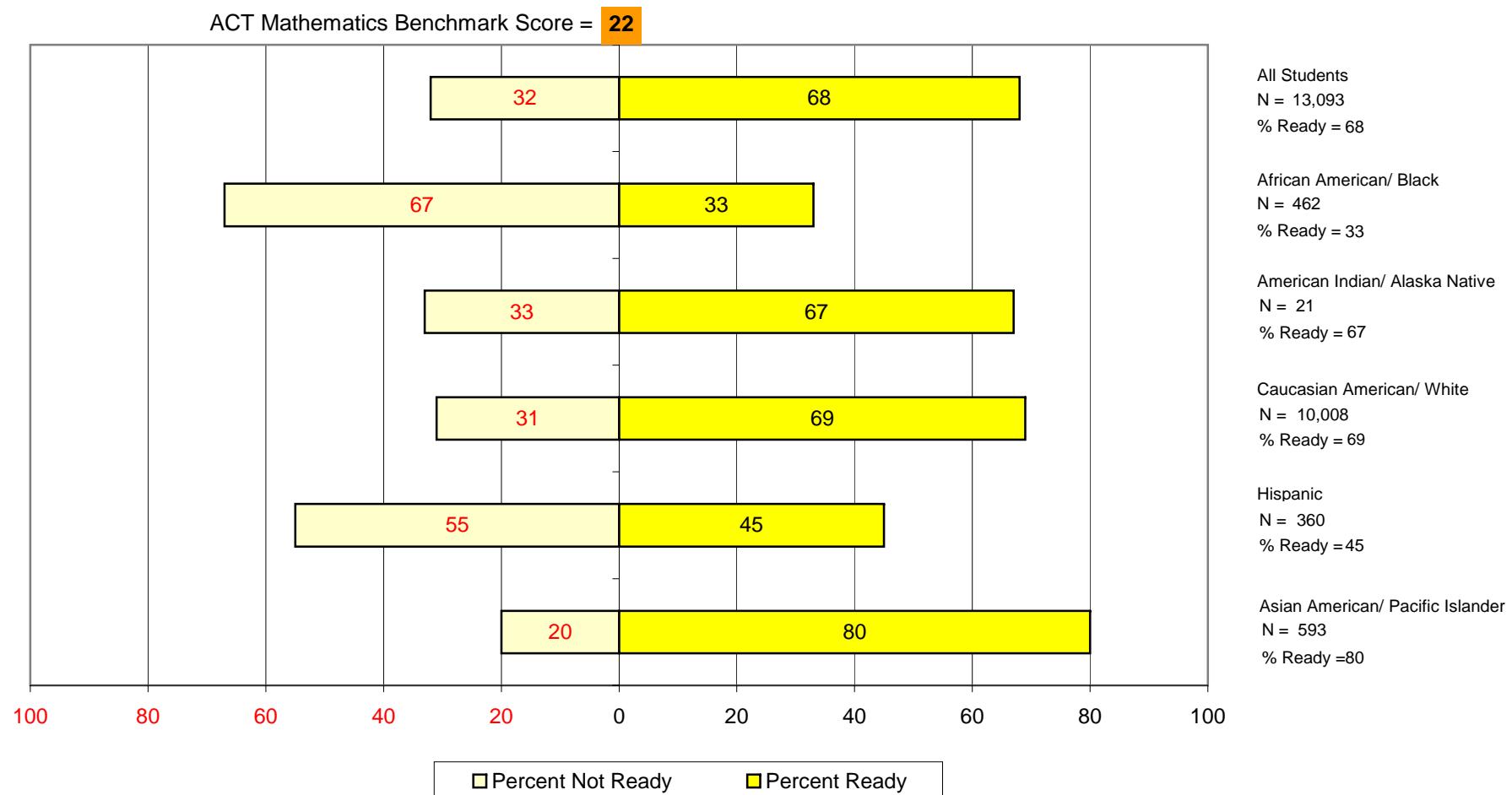
Figure 3.2. Percent of Students Meeting ACT College Readiness Benchmark Scores by Race/Ethnicity: MATHEMATICS

Figure 3.3. Percent of Students Meeting ACT College Readiness Benchmark Scores by Race/Ethnicity: READING

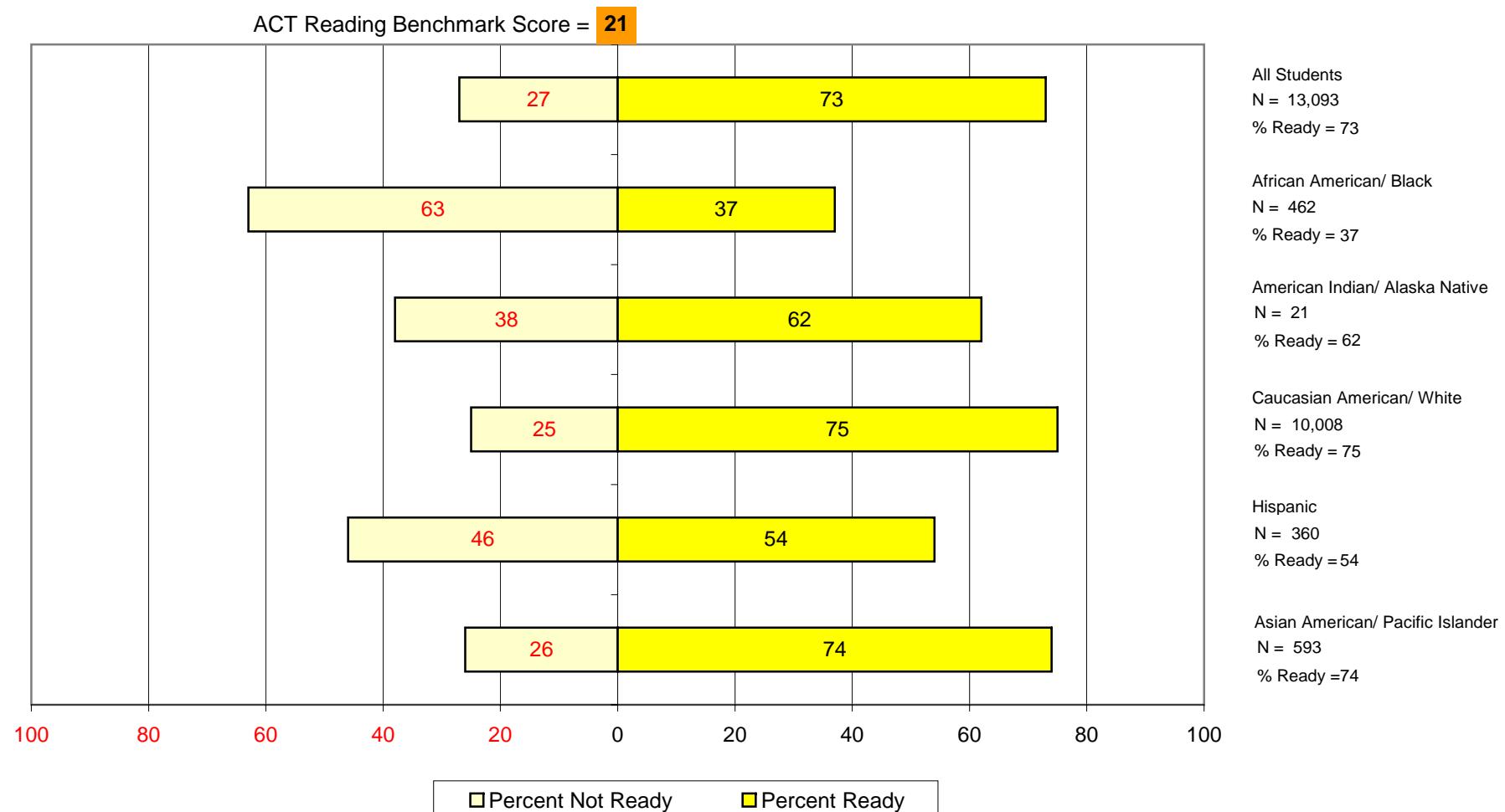


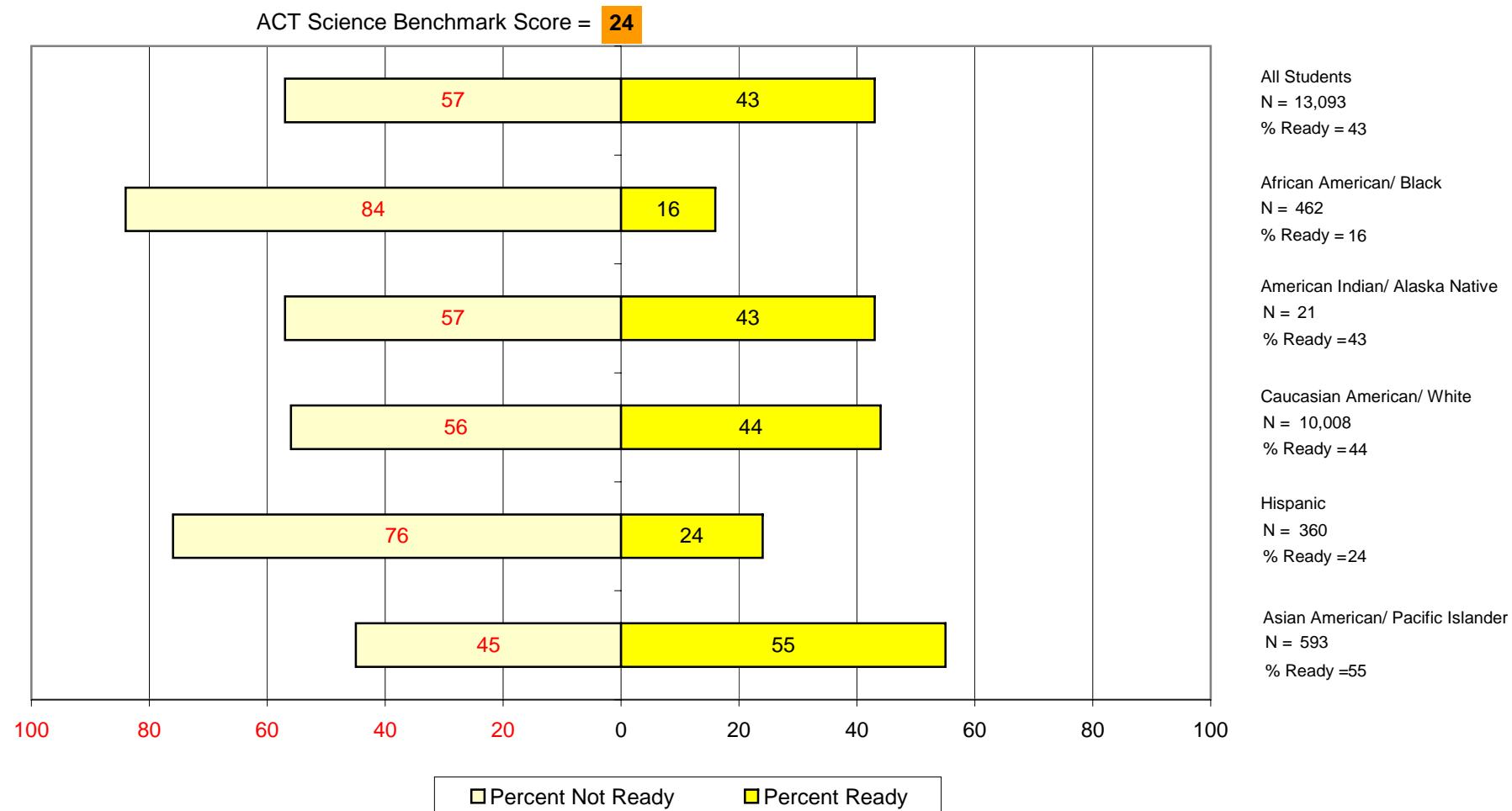
Figure 3.4. Percent of Students Meeting ACT College Readiness Benchmark Scores by Race/Ethnicity: SCIENCE

Figure 3.5. Percent of Students Meeting ACT College Readiness Benchmark Scores by Race/Ethnicity: ALL FOUR

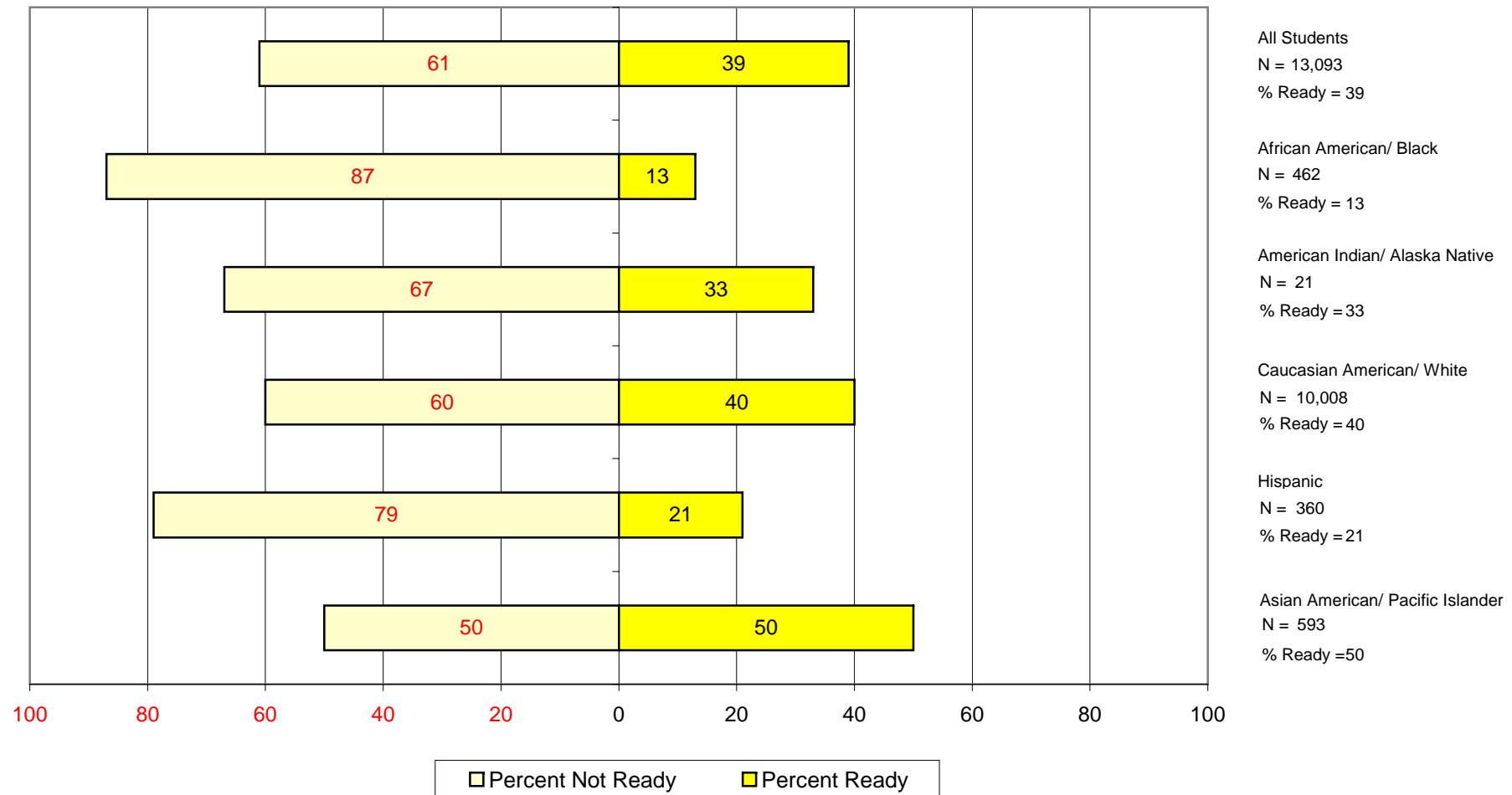


Table 3.1. Average ACT Scores and Average ACT Score Changes by Common Course Patterns

Course Pattern	All Students					Males					Females				
	N	Percent	ACT English	Course Value Added ¹	N	Percent	ACT English	Course Value Added ¹	N	Percent	ACT English	Course Value Added ¹			
ENGLISH COURSE PATTERN															
Eng 9, Eng 10, Eng 11, Eng 12, & Other English	3,665	28	24.5	2.8	1,397	26	23.8	2.9	2,246	30	24.8	2.2			
Eng 9, Eng 10, Eng 11, Eng 12 (Min. Core)	8,980	69	23.9	2.2	3,817	70	23.6	2.7	5,128	68	24.0	1.4			
Less than 4 years of English	183	1	21.7	-	99	2	20.9	-	83	1	22.6	-			
No English course/grade information reported	265	2	21.4	-	142	3	20.8	-	120	2	21.8	-			
MATHEMATICS COURSE PATTERN	N	Percent	ACT Math	Course Value Added ¹	N	Percent	ACT Math	Course Value Added ¹	N	Percent	ACT Math	Course Value Added ¹			
Alg 1, Alg 2, Geom, Trig, & Calc	1,480	11	26.6	6.1	567	10	27.2	5.8	904	12	26.1	6.3			
Alg 1, Alg 2, Geom, Trig, & Other Adv Math	1,246	10	23.1	2.6	389	7	24.0	2.6	852	11	22.7	2.9			
Alg 1, Alg 2, Geom, & Trig	807	6	21.1	0.6	315	6	21.6	0.2	488	6	20.8	1.0			
Alg 1, Alg 2, Geom, & Other Adv Math	1,675	13	21.3	0.8	536	10	21.8	0.4	1,136	15	21.1	1.3			
Other comb of 4 or more years of Math	6,171	47	26.0	5.5	2,925	54	26.6	5.2	3,220	42	25.4	5.6			
Alg 1, Alg 2, & Geom (Min. Core)	590	5	18.8	-1.7	228	4	19.1	-2.3	357	5	18.5	-1.3			
Other comb of 3 or 3.5 years of Math	674	5	23.3	2.8	274	5	23.3	1.9	396	5	23.2	3.4			
Less than 3 years of Math	179	1	20.5	-	75	1	21.4	-	102	1	19.8	-			
No Math course/grade information reported	271	2	22.4	-	146	3	22.5	-	122	2	22.2	-			
SOCIAL SCIENCE COURSE PATTERN	N	Percent	ACT Reading	Course Value Added ¹	N	Percent	ACT Reading	Course Value Added ¹	N	Percent	ACT Reading	Course Value Added ¹			
US Hist, World Hist, Am Gov, & Other Hist	789	6	24.9	0.6	383	7	25.0	0.7	401	5	24.8	0.5			
Other comb of 4 or more years Social Science	3,596	27	24.0	-0.3	1,620	30	23.9	-0.4	1,962	26	24.1	-0.2			
US Hist, World Hist, & Am Gov (Min. Core)	545	4	24.3	0.0	251	5	24.3	0.0	291	4	24.3	0.0			
Other comb of 3 or 3.5 years of Social Science	3,815	29	24.5	0.2	1,472	27	24.4	0.1	2,325	31	24.5	0.2			
Less than 3 years of Social Science	4,073	31	24.3	-	1,579	29	24.3	-	2,476	33	24.3	-			
No Soc Sci course/grade information reported	275	2	22.2	-	150	3	21.7	-	122	2	22.6	-			
NATURAL SCIENCE COURSE PATTERN	N	Percent	ACT Science	Course Value Added ¹	N	Percent	ACT Science	Course Value Added ¹	N	Percent	ACT Science	Course Value Added ¹			
Gen Sci ² , Bio, Chem, & Phys	7,654	58	23.3	3.2	3,408	62	23.8	3.3	4,211	56	22.9	3.1			
Bio, Chem, Phys	2,052	16	24.0	3.9	901	17	24.7	4.2	1,142	15	23.5	3.7			
Gen Sci ² , Bio, Chem (Min. Core)	2,425	19	21.2	1.1	731	13	21.4	0.9	1,686	22	21.1	1.3			
Other comb of 3 years of Natural Science	153	1	20.7	0.6	84	2	21.5	1.0	68	1	19.7	-0.1			
Less than 3 years of Natural Science	536	4	20.1	-	183	3	20.5	-	348	5	19.8	-			
No Nat Sci course/grade information reported	273	2	20.9	-	148	3	20.9	-	122	2	20.8	-			

¹Course value added is defined as the average ACT score change compared to a less than core course sequence.²Includes General, Physical and Earth Sciences.

Table 3.2. College Readiness Percents by Common Course Patterns

Course Pattern	State				National			
	N	Percent Taking Pattern	Avg ACT English	Percent Meeting Benchmark	N	Percent Taking Pattern	Avg ACT English	Percent Meeting Benchmark
ENGLISH COURSE PATTERN								
Eng 9, Eng 10, Eng 11, Eng 12, & Other English	3,665	28	24.5	88	338,118	23	22.0	76
Eng 9, Eng 10, Eng 11, Eng 12 (Min. Core)	8,980	69	23.9	86	1,029,431	70	20.6	68
Less than 4 years of English	183	1	21.7	77	74,090	5	16.7	42
No English course/grade information reported	265	2	21.4	74	38,830	3	16.1	37
MATHEMATICS COURSE PATTERN	N	Percent Taking Pattern	Avg ACT Math	Percent Meeting Benchmark	N	Percent Taking Pattern	Avg ACT Math	Percent Meeting Benchmark
Alg 1, Alg 2, Geom, Trig, & Calc	1,480	11	26.6	86	92,630	6	24.5	71
Alg 1, Alg 2, Geom, Trig, & Other Adv Math	1,246	10	23.1	65	135,244	9	22.1	56
Alg 1, Alg 2, Geom, & Trig	807	6	21.1	44	110,962	7	20.0	35
Alg 1, Alg 2, Geom, & Other Adv Math	1,675	13	21.3	47	220,868	15	20.1	36
Other comb of 4 or more years of Math	6,171	47	26.0	80	455,130	31	23.9	66
Alg 1, Alg 2, & Geom (Min. Core)	590	5	18.8	21	248,747	17	17.5	12
Other comb of 3 or 3.5 years of Math	674	5	23.3	62	70,732	5	20.1	35
Less than 3 years of Math	179	1	20.5	40	105,591	7	16.5	7
No Math course/grade information reported	271	2	22.4	55	40,565	3	17.7	18
SOCIAL SCIENCE COURSE PATTERN	N	Percent Taking Pattern	Avg ACT Reading	Percent Meeting Benchmark	N	Percent Taking Pattern	Avg ACT Reading	Percent Meeting Benchmark
US Hist, World Hist, Am Gov, & Other Hist	789	6	24.9	75	46,754	3	22.8	61
Other comb of 4 or more years Social Science	3,596	27	24.0	72	735,636	50	22.0	57
US Hist, World Hist, & Am Gov (Min. Core)	545	4	24.3	72	84,543	6	20.6	47
Other comb of 3 or 3.5 years of Social Science	3,815	29	24.5	74	420,236	28	21.3	52
Less than 3 years of Social Science	4,073	31	24.3	72	152,775	10	19.7	40
No Soc Sci course/grade information reported	275	2	22.2	59	40,525	3	17.5	26
NATURAL SCIENCE COURSE PATTERN	N	Percent Taking Pattern	Avg ACT Science	Percent Meeting Benchmark	N	Percent Taking Pattern	Avg ACT Science	Percent Meeting Benchmark
Gen Sci ¹ , Bio, Chem, & Phys	7,654	58	23.3	47	563,824	38	22.2	39
Bio, Chem, Phys	2,052	16	24.0	54	141,531	10	23.3	47
Gen Sci ¹ , Bio, Chem (Min. Core)	2,425	19	21.2	29	459,833	31	20.1	21
Other comb of 3 years of Natural Science	153	1	20.7	27	41,353	3	19.8	21
Less than 3 years of Natural Science	536	4	20.1	25	233,215	16	18.4	11
No Nat Sci course/grade information reported	273	2	20.9	28	40,713	3	17.7	11

¹Includes General, Physical and Earth Sciences.

Section IV

Career and Educational Aspirations

Table 4.1. Distribution of Planned Educational Majors for All Students by College Plans

Planned Educational Major	All Students			Plan on 2 Years or Less of College			Plan on 4 Years or More of College		
	N ¹	Percent ²	Avg ACT Comp	N	Percent ²	Avg ACT Comp	N	Percent ²	Avg ACT Comp
Agriculture Sciences & Technologies	48	0	20.6	0	0	.	46	0	20.7
Architecture & Environmental Design	211	2	23.1	1	3	11.0	184	2	22.9
Business & Management	1,963	15	23.1	5	14	16.0	1,715	16	23.1
Business & Office	80	1	21.3	1	3	17.0	71	1	21.4
Marketing & Distribution	146	1	21.7	0	0	.	128	1	21.6
Communications & Comm. Technologies	539	4	23.3	3	9	22.3	486	4	23.2
Community & Personal Services	169	1	20.3	1	3	17.0	160	1	20.4
Computer & Information Sciences	171	1	24.4	1	3	12.0	146	1	24.5
Cross-Disciplinary Studies	89	1	26.3	0	0	.	74	1	26.2
Education	462	4	21.9	1	3	18.0	413	4	22.0
Teacher Education	167	1	21.7	0	0	.	150	1	21.6
Engineering	533	4	26.0	1	3	15.0	469	4	25.9
Engineering-Related Technologies	342	3	24.6	0	0	.	317	3	24.5
Foreign Languages	142	1	26.3	0	0	.	125	1	26.4
Health Sciences & Allied Health Fields	1,621	12	22.9	9	26	17.8	1,469	13	22.9
Human, Family & Consumer Science	56	0	21.8	1	3	23.0	50	0	21.5
Letters	132	1	26.9	0	0	.	109	1	27.0
Mathematics	131	1	26.7	0	0	.	100	1	26.7
Philosophy, Religion & Theology	33	0	27.1	0	0	.	27	0	27.3
Sciences (Biological & Physical)	1,176	9	25.9	0	0	.	1,041	10	25.8
Social Sciences	1,105	8	24.5	2	6	17.0	978	9	24.5
Trade & Industrial	20	0	19.0	4	11	17.0	13	0	18.4
Visual & Performing Arts	564	4	23.6	1	3	11.0	479	4	23.7
Undecided	2,832	22	24.6	3	9	19.7	2,124	19	24.3
No Response	361	3	21.8	1	3	12.0	50	0	21.9

¹2-Year and 4-Year "N" counts do not reflect "Missing" and "Other" institution types, therefore they may not add up to the N count for All Students.²Percent of students tested within College Plan groups (All Students, 2-Year, 4-Year).

Table 4.2. Average ACT Composite Scores for Racial/Ethnic Groups by Post-Secondary Educational Aspirations

Educational Degree Aspirations	All Racial/Ethnic Groups Combined		African American/Black		American Indian/Alaska Native		Caucasian American/White		Hispanic		Asian American/Pacific Islander		Other/No Response	
	N	Average	N	Average	N	Average	N	Average	N	Average	N	Average	N	Average
Voc-Tech	4	17.0	0	.	0	.	4	17.0	0	.	0	.	0	.
2-yr College Degree	31	17.3	2	16.0	0	.	24	17.5	3	17.3	0	.	2	15.5
Bachelors Degree	3,754	22.0	92	17.0	4	23.3	3,163	22.2	95	19.9	115	21.9	285	22.0
Graduate Study	3,913	24.4	103	19.9	6	22.5	3,192	24.6	89	22.1	139	25.6	384	24.5
Prof. Level Degree	3,257	25.4	187	20.1	6	24.7	2,244	25.8	128	21.9	256	26.4	436	25.9
Other	207	21.9	13	18.7	0	.	148	22.1	7	22.6	8	17.8	31	23.3
No Response	1,927	24.6	65	18.4	5	24.8	1,233	24.9	38	19.8	75	26.3	511	24.9

Table 4.3. Students' Score Report Preferences at Time of Testing

Name	State	Number of Students			Percent of Students in College Readiness Standards Ranges						
		Total	1st Choice	2nd-6th Choice	01-12	13-15	16-19	20-23	24-27	28-32	33-36
UNIV OF MASSACHUSETTS AMHERST	Massachusetts	874	220	654	0	3	15	31	32	18	2
NORTHEASTERN UNIVERSITY	Massachusetts	685	199	486	0	2	10	29	35	22	1
BOSTON UNIVERSITY	Massachusetts	566	199	367	0	2	9	23	40	23	2
BOSTON COLLEGE	Massachusetts	397	165	232	1	2	9	16	43	28	2
UNIVERSITY OF NEW HAMPSHIRE	New Hampshire	326	48	278	0	1	17	38	32	11	1
UNIV OF MASSACHUSETTS-DARTMOUTH	Massachusetts	287	57	230	1	7	29	37	21	4	0
UNIVERSITY OF CONNECTICUT	Connecticut	263	45	218	0	2	10	34	38	16	0
QUINNIPAC UNIVERSITY	Connecticut	248	69	179	0	2	10	40	39	9	0
BRIDGEWATER STATE COLLEGE	Massachusetts	243	80	163	1	12	37	33	13	4	0
UNIVERSITY OF RHODE ISLAND	Rhode Island	227	41	186	0	2	19	37	31	10	0
UNIV OF MASSACHUSETTS LOWELL	Massachusetts	209	44	165	1	7	25	38	23	6	0
TUFTS UNIVERSITY	Massachusetts	207	64	143	0	0	8	17	29	39	7
UNIVERSITY OF VERMONT	Vermont	202	49	153	0	0	8	25	39	24	4
BENTLEY COLLEGE	Massachusetts	194	60	134	0	2	10	31	43	13	1
WESTFIELD STATE COLLEGE	Massachusetts	190	41	149	0	12	41	32	13	3	0
SUFFOLK UNIVERSITY	Massachusetts	185	35	150	1	5	32	36	19	6	0
WORCESTER STATE COLLEGE	Massachusetts	180	47	133	2	10	47	26	10	6	0
ROGER WILLIAMS UNIVERSITY	Rhode Island	179	40	139	0	2	18	50	22	6	1
SALEM STATE COLLEGE	Massachusetts	178	40	138	0	12	38	34	15	2	0
BROWN UNIVERSITY	Rhode Island	166	67	99	0	1	1	11	27	50	10
WORCESTER POLYTECHNIC INST	Massachusetts	151	52	99	0	1	7	27	29	32	4
ENDICOTT COLLEGE	Massachusetts	144	45	99	0	6	27	44	19	3	0
ASSUMPTION COLLEGE	Massachusetts	141	35	106	1	6	33	35	22	4	0
NCAA ELIGIBILITY CENTER	Indiana	139	95	44	3	4	17	29	30	16	1
PROVIDENCE COLLEGE	Rhode Island	133	24	109	0	0	7	18	49	26	0
FRAMINGHAM STATE COLLEGE	Massachusetts	132	30	102	2	12	42	34	10	1	0
FITCHBURG STATE COLLEGE	Massachusetts	131	26	105	0	13	39	35	11	2	0
STONEHILL COLLEGE	Massachusetts	127	18	109	1	4	13	29	39	13	2
SALVE REGINA UNIVERSITY	Rhode Island	123	33	90	0	2	26	38	28	5	0
SAINT ANSELM COLLEGE	New Hampshire	121	24	97	0	2	17	44	27	9	0
All Other Institutions		7,933	2,085	5,848	1	4	15	24	30	23	3
Total		15,281	4,077	11,204	1	4	17	27	30	19	2

Section V

Optional Writing Test Results

Table 5.1. Average ACT English and Writing Scores by Race/Ethnicity and Gender for students who took ACT Writing

	N		English		Average ACT Scores			
					Essay		English/Writing Combined	
	State	National	State	National	State	National	State	National
All Students	11,239	814,713	24.4	21.5	8.0	7.2	23.8	20.8
African American/Black	366	96,225	19.4	16.5	7.3	6.4	19.4	16.5
American Indian/Alaska Native	20	5,489	23.6	18.9	7.8	6.7	22.9	18.5
Caucasian American/White	8,515	497,164	24.6	22.8	8.0	7.3	23.9	21.9
Hispanic	305	85,681	21.2	18.4	7.6	7.0	21.0	18.4
Asian American/Pacific Islander	551	44,716	24.8	23.5	8.1	7.6	24.1	22.8
Other/No Response	1,482	85,438	25.1	21.4	8.0	7.2	24.2	20.8
Males	4,571	357,025	24.1	21.1	7.8	6.9	23.3	20.3
Females	6,613	455,190	24.7	21.7	8.1	7.4	24.1	21.2
Missing	55	2,498	26.7	22.1	8.5	7.2	25.8	21.3

